with resulting forms which are either identical with or exceedingly difficult to separate from these cyst-like bodies. The failure to reproduce these several diseases by artificial inoculation of the alleged parasites, and the unsatisfactory reports of the results of their culture and of the discovery of a special staining medium have led to a qualified acceptance only of the conclusions here presented.

The genial author of this little monograph may, however, be well congratulated on the fruit of his work. He has not merely given a most creditable report of the whole subject from the special etiological point of view which he and his friends accept, but has furnished us with the best accessible abstract of the literature of Paget's disease of the nipple which has been brought up to date. The plates added, illustrating the gross and microscopical features of the malady, are well reproduced.

His many friends in England and America will be glad to welcome this modest and painstaking contribution to science as the first-fruits of a labor which gives promise of large results. J. N. H.

EPILEPSY: ITS PATHOLOGY AND TREATMENT. An Essay to which was awarded a prize of four thousand francs by the Académie Royale de Médecine de Belgique, December 31, 1889. By HOBART AMORY HARE, M.D. (Univ. Penna.), B.Sc., Clinical Professor of the Diseases of Children and Demonstrator of Therapeutics in the University of Pennsylvania; Physician to St. Agnes Hospital and to the Children's Dispensary of the Children's Hospital; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London; Member of the Association of American Physicians. Pp. 228. Philadelphia and London: F. A. Davis, 1890.

THIS entertaining essay is, we believe, one of nine by this bright and energetic young writer which have received substantial recognition within a short period. Dr. Hare is decidedly to be congratulated on his ability as a prize-taker. That he is an indefatigable worker goes without saying, and he is winning not only monetary prizes, but an enviable name in his special field of work.

The subject is treated systematically in its various aspects—historical, symptomatic, etiological, pathological, and therapeutical. Dr. Hare takes issue with the belief of Gowers that transient post-convulsive paralysis may in certain cases be due to inhibition of the motor centres. Indeed, he is inclined to deal rather severely with this eminent neurologist for maintaining a view which he regards as altogether unnecessary, and entirely without physiological or other foundation. Yet we think that he is wrong; for the transient palsy succeeding a very slight fit, and that following seizures in which a purely sensory discharge replaces motor spasm, are better explained by Gowers's theory, of inhibition, than by that of Todd and Robertson's, of exhaustion. There at least seems nothing unreasonable in the view advanced by Gowers to account for the paresis succeeding a seizure of the latter sort; indeed, it cannot well be explained otherwise. Gowers states (*Diseases of the Nervous System*, Amer. ed., p. 1089) that "just as such a discharge in the sensory centre may . . . set up secondary discharge in the motor centre, so it may, when slight, merely inhibit the centre." As regards foundation for Dr. Gowers's hypothesis, we think the theory fits in sufficiently well with the facts to render it acceptable. Too little is accurately known of the true nature of inhibition to permit one to attempt to dogmatize on the subject. We personally are inclined to the view of Brunton, that inhibition is not dependent upon the existence of special centres. He regards inhibition and stimulation as relative conditions depending both on the length of path along which the nerve-impulse travels, and its rate of transmission. His hypothesis, which is consistent with known facts, is that nervous stimuli, like those of light and sound, consist of vibrations, and that interference of waves, as in the case of light and sound, inhibit action, while coincidence of waves reinforces stimulation. Gowers's idea of the origin of some forms of post-epileptic paralysis is easily explicable by a consideration of Brunton's hypothesis.

We find nothing in the character of the syphilitic headache accompanying luetic epilepsy, described by Dr. Hare, which may not also be present in the cephalalgia attending lead-convulsions, although he is inclined to the belief that the symptoms are more or less peculiar to cerebral syphilis. Tanquerel described a quite identical headache preceding the outbreak of lead-epilepsy, and the reviewer has notes of cases presenting similar phenomena. This point is noted because cases of lead-convulsions occurring in this city, and presumably elsewhere, have more than once been mistaken for both specific and ordinary epilepsy. The reviewer must take exception also to the statement first made by Dowse, and now insisted upon by Hare, that "epileptic attacks beginning after thirty years of age are almost surely syphilitic, particularly if no history of traumatism or heredity is present." Fortunately, lead-convulsions are not of very frequent occurrence, so mistakes are not often apt to arise; yet, perhaps, because of their rarity, and certainly because of their obscurity (often as regards origin and prodromata) it is well to be mindful that they may occur at any age, and in those whose occupation does not expose them to the metal.

Discussing the influence of traumatism on the etiology of epilepsy, Dr. Hare urges that the greatest care be exercised in our decision as to the causative factor, so that we be not misled by a mere history of an injury into a *post hoc ergo propter hoc* opinion. He recognizes that cerebral injury may induce epilepsy, and yet, it seems to us, fails to lay sufficient stress on the well-known fact that even though the primary causative factor of epilepsy be removed, whether it be in a peripheral part, or central consisting of a depressed fragment of bone, the convulsions may still continue through a state of chronic high instability of certain cells having been set up by the irritant which does not disappear with the removal of the latter. This condition of affairs may be present even though no inherited tendency to cerebral disorder exists. Bearing on this, Dr. Hare states (p. 95): "Naturally, if two cases have a history of cerebral injury, and both are epileptic, one is apt to think that the same cause is at work in both instances, but in reality no proof exists that such is the case. In one individual, elevation of a depressed fragment of bone may result in a cure; in the other, even though a depression exists, and is removed, no benefit may be reached, because in the period between the reception of the injury and the first fit the man has contracted syphilis, which has produced epilepsy under the cloak of traumatism, and which is only relieved by mercury and the iodides, or he has a constitutional inherited tendency to epilepsy, aside from any extraneous causes." The convulsions might still have continued in the second case, after the removal of the depressed fragment of bone, and yet the epilepsy have been originated by the traumatism; the same might hold good had the fits had a luetic cause and careful anti-syphilitic treatment had been instituted. As Hughlings-Jackson expressed it, a syphilitic lesion may *cause the cause* of the fits, and this latter cause (probably high instability of cells in the vicinity of the original lesion), not being specific, may continue after the removal of all cerebral evidences of syphilis.

Through an oversight, perhaps, the dose of dilute hydrobromic acid, mentioned in the chapter devoted to the treatment of epilepsy, is considerably larger than that usually prescribed: one-half a fluidounce to one fluidounce, in place of one-half to one drachm. Nickel bromide, too, should scarcely be given in the same dose as potassium bromide. From five to ten grains is the ordinary dose of this salt of nickel, while that of potassium bromide is, of course, much larger.

In concluding these few criticisms we would say that the book is an excellent *résumé*, treated in a painstaking and thorough manner. We cordially recommend it to those interested in the subject.

D. D. S.

HYGIENE AND PUBLIC HEALTH. By LOUIS C. PARKES, M.D., D.P.H. Lond. Univ., Assistant Professor of Hygiene and Public Health at University College, London. With Illustrations. Pp. 485. Philadelphia: P. Blakiston, Son & Co., 1890.

THE second edition of this practical, plainly-written, elementary work on hygiene follows closely upon the first issue. The author must be congratulated upon the success of his efforts to interest the practising profession upon so important and vital a subject. It is remarkable to note how rapidly the question of hygiene is absorbing the attention both of the medical profession and the laity, and although there has not elapsed a sufficient time to allow of very important additions to the mass of sanitary knowledge already presented to his readers, Dr. Parkes is able to supplement the information already given with fresh facts and new tables.

It will be advisable to devote some space to the quotation of the new data and paragraphs, and thus enable the reader to judge for himself, viz.:

"There is also some evidence to show that leaden water-pipes are much more rapidly corroded when the mains are intermittently charged than when kept under constant high pressure."

In speaking of magnetic carbide of iron as a filtering substance, the following paragraph has been added: "A very similar material called polarite has lately come into use. It contains about fifty per cent. of magnetic oxide and carbide of iron combined with other insoluble mineral matters, and is capable of producing equally good results."